

Week 10: March 4-10, 2012

*Influenza activity in Manitoba has **increased** since last week.*

Summary:

- During week 10 (Mar 4-10, 2012), influenza activity **increased**.
- The influenza-like-illness rate was **2.2%** with **63.6%** of sentinel physician sites reporting.
- The number of respiratory tests performed by CPL was about the same as last week; however, the percent positive for influenza increased from 5% to **27%**.
- There were **four** lab-confirmed outbreaks of influenza reported this week in long term care facilities: **two** of influenza A and **two** of influenza B.
- There were **five** hospitalizations reported associated with a lab-confirmed report of influenza.

Contents:

Sentinel Physicians	2
Health Links – Info Santé (HL-IS)	3
Laboratory Surveillance.....	4
Clinically Severe Cases.....	7
Outbreaks	8
Sub-Typing, Strain Characterization, and Antiviral Resistance	9
Abbreviations	10
Explanatory Notes and Definitions.....	10

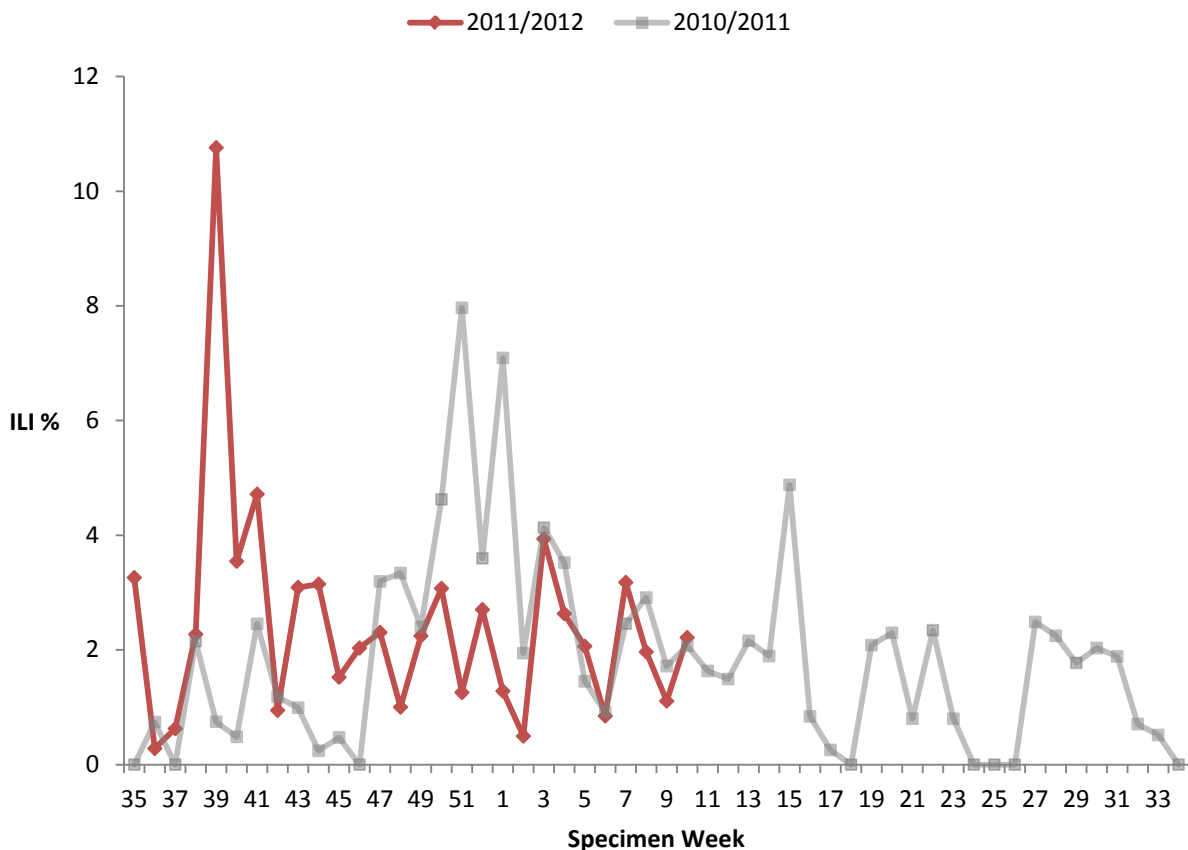
Sentinel Physicians

Manitoba Health participates in the National *FluWatch* Program coordinated by PHAC. In addition to laboratory-confirmation of influenza, this program relies on weekly reports of ILI as reported by 22 current Manitoban sentinel physicians in eight RHAs.

Manitoba Health receives weekly reports from PHAC presenting the provincial ILI rate and the specific data for each of the participating sentinel physicians. The graph below depicts the proportion of total patients who were seen for an ILI. These numbers should be interpreted with caution as the number of sentinel physicians reporting to *FluWatch* varies from week to week and may not be representative of ILI activity across the province.

The proportion of patients seen for an ILI increased during week 10 to 2.2% from 1.1% last week. The proportion is about the same as what was observed at the same time last season.

Figure 1. Proportion of patients seen for ILI as reported by *FluWatch* sentinel physicians by week and flu season, Manitoba

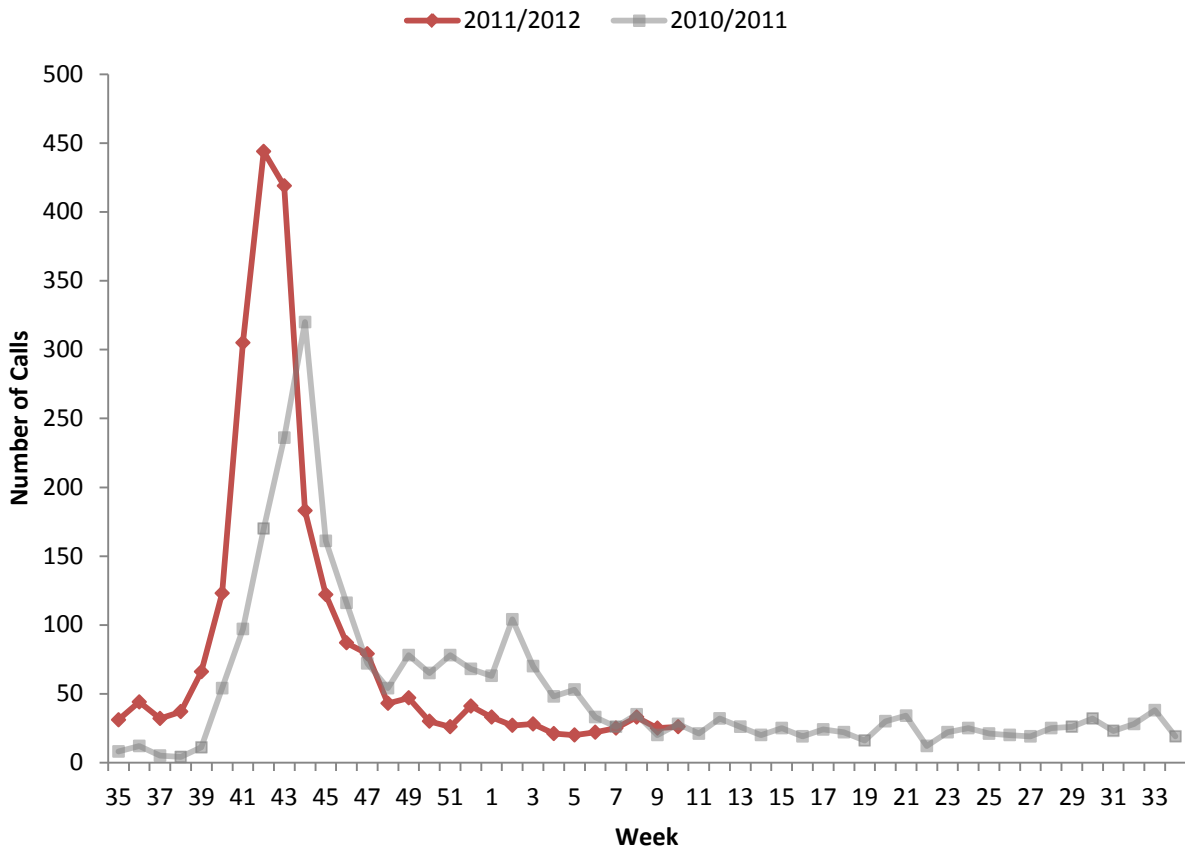


Health Links – Info Santé (HL-IS)

HL-IS is a 24-hour, 7-days a week telephone information service staffed by registered nurses with the knowledge to provide answers over the phone to health care questions and guidance to appropriate care. When a caller phones HL-IS and selects the Influenza Service, they are given an option to select information on (1) the groups of individuals who are at an increased risk of serious illness, (2) how to arrange a flu shot, (3) the annual influenza immunization campaign, or (4) the management of flu and its potential complications.

The number of calls to HL-IS Influenza Service was about the same as last week. The weekly total is comparable to the total observed at the same time last season.

Figure 2. The number of calls to HL-IS Influenza Service by season, Manitoba



Laboratory Surveillance

Reports of culture isolations and enzyme immunoassay (EIA) detections from Cadham Provincial Laboratory (CPL) are forwarded to the Public Health Surveillance (PHS) Unit weekly. While EIA detections and culture isolations comprise the largest number of reports from CPL, seroconversions are similarly forwarded to the PHS Unit weekly.

Since the last flu report, there have been:

- 10 new cases of influenza A reported;
- 10 new cases of influenza B reported.

Since the beginning of the season, there have been:

- 21 cases of influenza A reported;
- 16 cases of influenza B reported.

Age Group	Influenza A		Influenza B	
	# of cases	% of total	# of cases	% of total
<1 yrs	3	14.3%	0	0.0%
1-4 yrs	1	4.8%	3	18.8%
5-9 yrs	1	4.8%	8	50.0%
10-14 yrs	2	0.0%	1	0.0%
15-19 yrs	0	0.0%	0	0.0%
20-24 yrs	0	9.5%	0	6.3%
25-29 yrs	1	4.8%	0	0.0%
30-39 yrs	2	9.5%	1	6.3%
40-49 yrs	2	9.5%	1	6.3%
50-59 yrs	0	0.0%	1	6.3%
60-69 yrs	1	4.8%	1	6.3%
70-79 yrs	8	38.1%	0	0.0%
>79 yrs	3	14.3%	0	0.0%
Missing	0	0.0%	0	0.0%
TOTAL	21		16	

Figure 3. Number of lab-confirmed cases of influenza A by specimen collection week and season, Manitoba (Note: 2009/2010 season excluded due to the H1N1 pandemic, making the numbers incomparable with other seasons.)

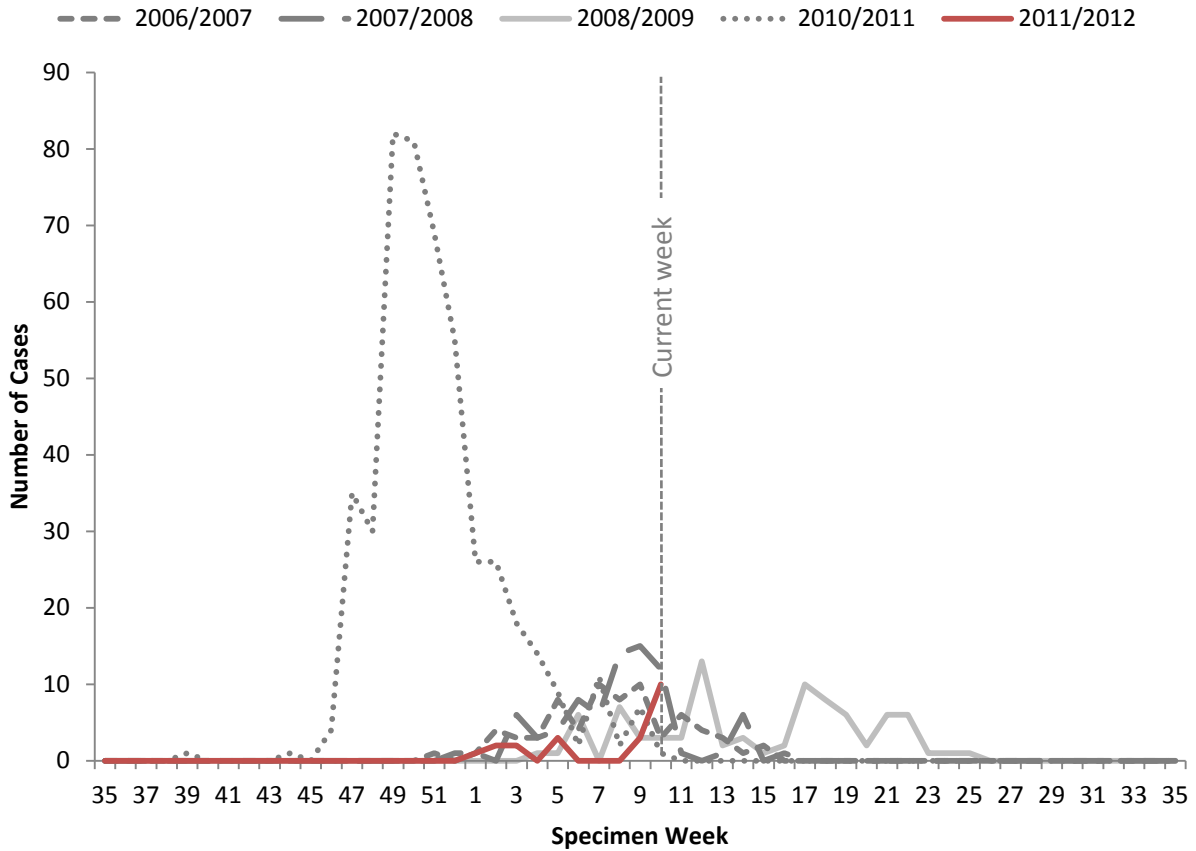
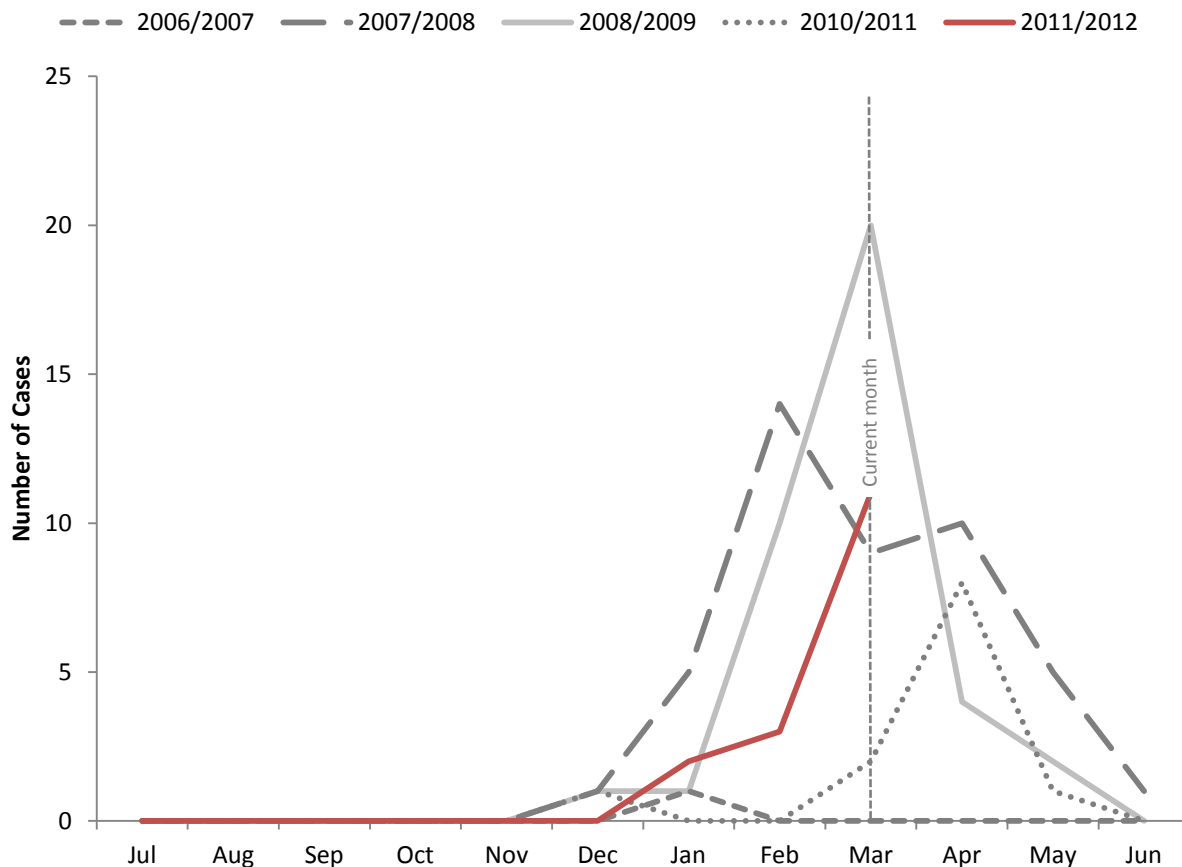


Figure 4. Number of lab-confirmed cases of influenza B by specimen collection month and season up to March 10, 2012, Manitoba



Clinically Severe Cases

This season, PHAC is requesting provinces and territories to report the number of hospitalizations, ICU admissions, and deaths **associated** with a lab-confirmed report of influenza. The reason for hospitalization, ICU admission, or death does not have to be attributable to the influenza diagnosis in order to be included in this count. These data are collected in order to continue with the surveillance system implemented during the 2009 H1N1 pandemic to help monitor the severity/burden of illness during the influenza season.

During week 10, there were:

- 5 new hospitalizations;
- 0 new ICU admissions;
- 0 new deaths.

Since the beginning of the season, there have been:

- 10 hospitalizations, of which
- 1 resulted in an ICU admission; and
- 1 death.¹

¹ The reason for hospitalization, ICU admission, or death does not have to be attributable to the influenza diagnosis in order to be included in this count.

Outbreaks

Outbreaks of influenza must be accompanied by a positive influenza lab report to be counted. The outbreak-related cases reflected on tables and figures within this report are lab-confirmed. However, most outbreak-related cases will not be lab-confirmed.

During week 10, there were:

- 2 new outbreaks of influenza A;
- 2 new outbreaks of influenza B.

Since the beginning of the season, there has been:

- 3 outbreak of influenza A;
- 2 outbreaks of influenza B.

Table 2. Number of lab-confirmed outbreaks of influenza by RHA and season, Manitoba

RHA:	2010/2011 (up to Mar 12, 2011)				2011/2012 (up to Mar 10, 2012)			
	LTCF	Workplace	ACF	Community	LTCF	Workplace	ACF	Community
Winnipeg	21	1	1		5			
Brandon	2							
North Eastman								
South Eastman								
Interlake	2							
Central	2		1					
Assiniboine	4							
Parkland	1							
Nor-Man								
Burntwood				1				
Churchill								

LTCF: long term care facility

ACF: acute care facility

Sub-Typing, Strain Characterization, and Antiviral Resistance

Sub-Typing:

Table 3. Sub-typing of influenza A specimens as reported by CPL, 2011/2012 flu season, Manitoba

A/H1	A/H3	A Unsubtyped	A Total
1	7	13	21

Strain Characterization:

Since September 1, 2011, NML has antigenically characterized 532 influenza viruses (121 H3N2, 99 H1N1, and 312 B viruses) that were received from Canadian laboratories with the following results:

- 113 A/Perth/16/2009 (H3N2)-like²;
- 98 A/California/7/2009 (H1N1(pdm09))-like³;
- 167 B/Brisbane/60/08-like (B/Victoria/02/87 lineage)⁴;
- 145 B/Wisconsin/01/2010-like (Yamagata lineage)

There were no viruses characterized from CPL.

Antiviral Resistance:

Since September 1, 2011, NML has performed drug susceptibility testing on influenza isolates received from Canadian laboratories with the following results:

- 282 influenza A viruses (166 H3N2 and 116 H1N1) were tested for resistance to amantadine, and it was found that 165 H3N2 viruses were resistant to amantadine and one was sensitive to amantadine. All 116 H1N1 viruses were resistant to amantadine.
- 520 influenza viruses (112 H3N2, 104 H1N1 and 304 B) were tested for resistance to oseltamivir, and it was found that all 520 viruses were sensitive to oseltamivir.
- 517 influenza viruses (111 H3N2, 103 H1N1 and 303 B) were tested for resistance to zanamivir, and it was found that all 517 viruses were sensitive to zanamivir.

Of the isolates tested from CPL:

- 4 H3N2 viruses were resistant to amantadine.

² Strain match to recommended H3N2 component for the 2011/2012 northern hemisphere influenza vaccine.

³ Strain match to recommended H1N1 component for the 2011/2012 northern hemisphere influenza vaccine.

⁴ Strain match to recommended influenza B component for the 2011/2012 northern hemisphere influenza vaccine.

Abbreviations

ACF = acute care facility
CPL = Cadham Provincial Laboratory
HL-IS = Health Links – Info Santé
PHAC = Public Health Agency of Canada
ICU = intensive care unit
ILI = influenza-like-illness
LTCF = long term care facility
NML = National Microbiology Laboratory
PHS = Public Health Surveillance
RHA = Regional Health Authority
WRHA = Winnipeg Regional Health Authority

Explanatory Notes and Definitions

Cumulative data:

Cumulative data includes updates to previous weeks; due to reporting delays or amendments, the sum of weekly report totals may not add up to cumulative totals.

Data extraction date:

Manitoba-specific information contained within this update is based on data confirmed in Manitoba's PHS Unit databases on or before **March 15, 2012**, the date of data extraction.

ILI in the general population:

Acute onset of respiratory illness with fever and cough and with one or more of the following – sore throat, arthralgia, myalgia, or prostration, which is likely due to influenza. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

ILI outbreaks :

Schools: Greater than 10% absenteeism (or absenteeism that is higher (e.g. >5-10%) than expected level as determined by school or public health authority) which is likely due to ILI.

Hospitals and residential institutions: Two or more cases of ILI within a seven-day period, including at least one laboratory confirmed case.

Other settings: Two or more cases of ILI within a seven-day period, including at least one laboratory confirmed case; i.e. workplace, closed communities.

Specimen collection date:

The date the laboratory specimen is taken is used to assign cases to the appropriate week in this report.

For other Epidemiology and Surveillance reports, please view the Manitoba Health internet website:

<http://www.gov.mb.ca/health/publichealth/surveillance/index.html>

For national surveillance data, refer to:

<http://www.phac-aspc.gc.ca/fluwatch/index-eng.php>